ARPA-E eXCHANGE User Guide

ARPA-E's Online Application Portal

Advanced Research Projects Agency – Energy
Department of Energy

Updated June 24, 2011

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1.   Introduction

1.1   Welcome

This document is a users' guide for using ARPA-E eXCHANGE, the online application portal for the Advanced Research Projects Agency-Energy (ARPA-E). ARPA-E is an agency within the Department of Energy (DOE) that has funded the development and deployment of transformational and disruptive energy technologies and systems since 2009.

The web address for ARPA-E eXCHANGE is: https://**arpa-e-foa.energy.gov**.

ARPA-E eXCHANGE facilitates the following:

Dissemination of FOA information
- Communicates details of FOAs
- Communicates answers to frequently asked questions related to ARPA-E and to specific FOAs

Application for Funding Opportunities
- Enables funding applicants to register for specific Funding Opportunity Announcements
- Enables applicants to submit Concept Papers and Full Applications

1.2   Contact Information

Send questions regarding the ARPA-E online application portal, ARPA-E eXCHANGE, to:
**ExchangeHelp@hq.doe.gov**

2. Basic Information

2.1 ARPA-E eXCHANGE Home

To reach the ARPA-E eXCHANGE homepage from any page within the site click the [$ Funding Opportunity] link in the left navigation, as seen below in Figure 1, or navigate directly to https://arpa-e-foa.energy.gov. The homepage displays the following:

- Descriptions of ARPA-E Funding Opportunity Announcements (FOAs), including the current FOAs
- Deadlines for registering and submitting Concept Papers and Full Applications
- A link to apply to Funding Opportunity Announcements
- A link to FAQs (frequently asked questions)

Figure 1. ARPA-E eXCHANGE homepage
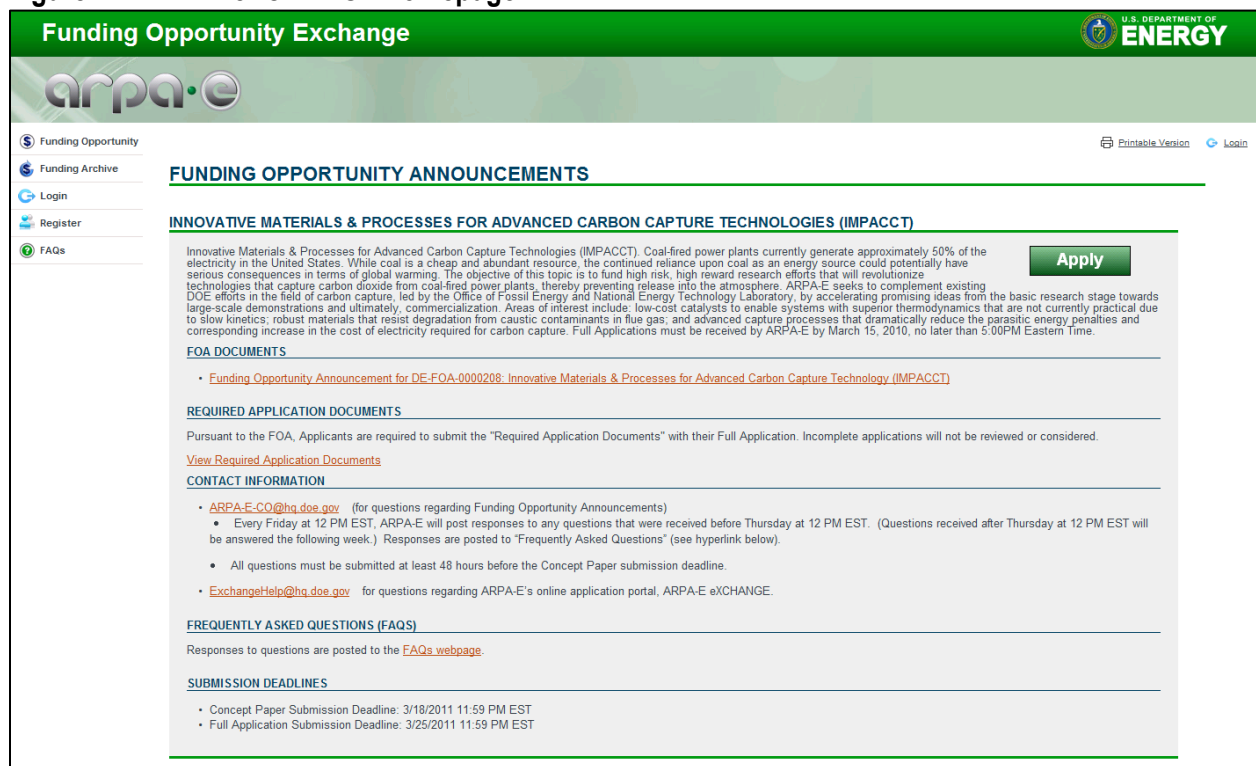
2.2 Register/Log in

In order to apply for funding, Applicants must register and create an account in ARPA-E eXCHANGE by clicking on the [Register] link in the left navigation or the top right corner. Applicants will need to provide the requested information, as illustrated in Figure 2.

Figure 2. Applicant Registration Page

Note*: It is imperative the applicant's email address is entered correctly – please double-check this address before completing the registration process.*
Note*: A Dun and Bradstreet Data Universal Numbering System (DUNS) number is requested but not required.*

To submit an application after registering, the applicant must be logged in. To log in click the ⏻ **Login** link, which appears in the top right corner of the page and above the 👤 **Register** link in the left navigation

Figure 3. Log in Page

Note*: Your e-mail address will be your login name, and passwords must be between 8 and 15 characters long, contain a lower case letter, a capital letter, one number, and contain one of the following symbols: !, @, #, $, %, ^, &, *, (,), _ +*
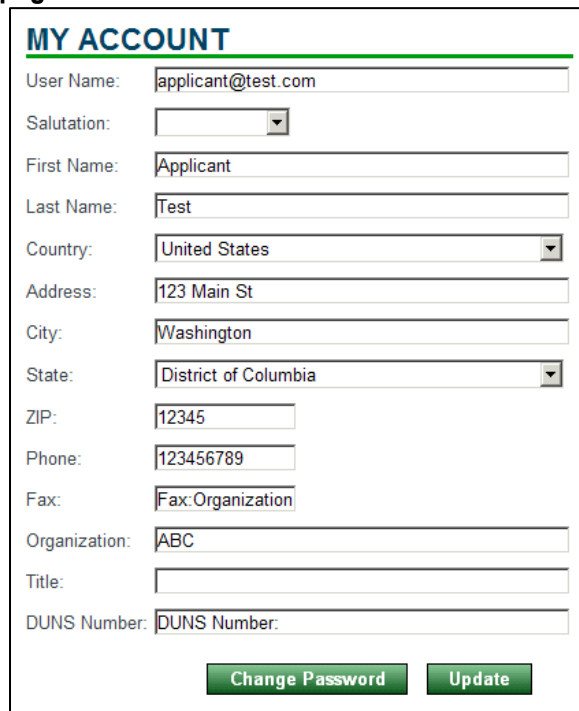
2.3   Account

Once logged in, the applicant may update account information by clicking the 👤 My Account link on the navigation on the left side of the page. To update information, provide the requested information and click the [Update] button. From this page the applicant may also change passwords by clicking the [Change Password] button and providing the requested information.

Figure 4. Account Details page

2.4   Funding Opportunity Announcements (FOAs)

The details of a FOA appear on the Ⓢ Funding Opportunity page, which can be accessed by clicking the link in the left navigation. The FOA overview outlines the following:

- Funding Opportunity Announcement title
- Description of the funding opportunity
- FOA Documents
- Contact information for the FOA
- Frequently Asked Questions (FAQs)
- Submission Deadlines

To apply to the FOA click the [Apply] button in the top right of the desired FOA.

2.5 My Submissions

To view your submissions click the 🔮 My Submissions link in the left navigation. Every submission that you have made to an ARPA-E FOA will be displayed on this page.

The 🔮 My Submissions tab outlines the following for each submission:
- Control number
- Title
- Status
- Date registered
- Lead organization

Figure 5. My Submissions page

MY SUBMISSIONS

SUBMISSION FOR GROUP5: SUBMISSION FOR GROUP5 TITLE

Below are your current submissions for Submission for Group5 Title

Concept Paper Submissions

Control Number	Title	Status	Date Registered	Lead Organization	
oup5-1501	Submissions for Group5	Review Complete	2/23/2011	Submissions for Group5	Delete

Full Application Submissions

Control Number	Title	Status	Date Registered	Lead Organization	
oup5-1501	Submissions for Group5	In Review	2/23/2011	Submissions for Group5	Delete

Apply to a FOA

Apply for an open FOA by selecting the FOA name and clicking "Apply".

| Select a FOA | ▼ | **Apply** |

Applications can be modified or deleted from the application process with the Edit or Delete links in the right column of the table. Applicants are advised to use caution to avoid deleting submission materials accidentally.

To create a new submission from the My Submissions page: Select the desired FOA from the drop down menu and click the Click the **Apply** button, as shown in Figure 5, which will bring you to the ARPA-E eXCHANGE homepage. Click the **Apply** button here to create a new submission and provide the requested information, as in Figure 6.

Figure 6. General Registration for a Concept Paper

You must provide specific identifying information when creating a concept paper, as outlined in Figure 7. Once the information is provided you will be able to provide additional details for your submission. At this stage the applicant will be assigned a control number to be used as reference for the duration of the specific FOA application process. Click **Create Concept Paper** to complete the registration process. After registering, the applicant will be required to submit a Concept Paper and other supporting information as outlined in the following section.

Note*: An applicant may submit multiple Concept Papers for the same FOA. The applicant must register each Concept Paper and ARPA-E eXCHANGE will assign each paper a unique control number.*

Note*: The default organization is "Business < 500 Employees". Ensure the proper organization type is selected from the scroll down menu.*

3. Concept Papers

To submit a Concept Paper and supporting information, the applicant must provide the requested information in the six tabs as outlined in this section, and shown below in Figure 7: 1. General, 2. Team Members, 3. Funds and Costs, 4. Contact Information, 5. TRL, and 6. Upload and Submit.

Figure 7. Concept Paper Details with General Tab highlighted

To **save work** and move to the next tab, click on the tab name or button.

Note: The button will take the applicant back to the FOA details. Please save information before returning to FOA or open FOA details in another window.

3.1 General

The General tab lists information that the applicant already provided during the initial registration of a Concept Paper for a particular FOA. This information is shown above in Figure 7.

On this tab, a control number will be assigned to your Concept Paper. It is very important to record this control number because you are required to display the control number on the upper right corner of the header of every page of your submissions, including Concept Papers, Full Application, and Replies to Reviewer Comments.

3.2 Team Members

Within the "Team Members" tab, Applicants are required to identify each member of the Project Team. To add a team member, click the Add New Team Member link. Then click the Save and Continue button and continue to the next tab. An applicant may add multiple team members through this process.

Figure 8. Team Members Tab

General	Team Members	Funds and Costs	Contact Information	TRL	Upload and Submit

Please list each organization that you will be teamed with to perform the proposed research and development project. The contact information for the lead technical point of contact at each organization is required.

Team Members have not been assigned to this submission.

Add New Team Member

Lead Organization Percent Effort: 50%

Team Member Percent of Project: 0%

Total Percent Effort: 50%

[Save and Continue] [Clear] [Go To FOA Details]

Team Member Details are requested as follows:

Figure 9. Team Member Information

TEAM MEMBER DETAILS

Organization Name: _____

Organization Type: [Business < 500 Employees ▼]

Estimated Percent of Project: [0 ▲▼] %

Details

Salutation: [▼]

First Name: _____

Last Name: _____

Title: _____

Email: _____

Country: [United States ▼]

Address: _____

City: _____

State: [▼]

ZIP: _____

Phone: _____

Fax: _____

Comments

[Create] [Cancel]

Provide the requested information before clicking the [Create] button.

Note: *The default organization is "Business < 500 Employees". Ensure the proper organization type is selected from the scroll down menu.*

Note: *The lead organization's percent of the FOA effort should not be included on the Team Members tab—the percentage contributed by the lead organization was already indicated under the General tab. Duplicating that percentage on the Team Members tab will result in double-counting and will generate an error when the applicant attempts to submit the concept paper.*

3.3   Funds and Costs

Within the "Funds and Costs" tab, you are required to provide the financial information displayed in Figure 10 below. By law, every Project Team is required to provide at least 20% of the Total Project Cost as cost share, unless the project qualifies for a reduced cost share requirement described in the FOA. Click the `Save and Continue` button and continue to the next tab.

Note: *ARPA-E eXCHANGE requires you to propose a cost share of at least 20% of the Total Project Cost under the "Funds and Costs" tab.*

Note: *If your project qualifies for a reduced cost share requirement described in the FOA, check the applicable box under the "Funds and Costs" tab. By checking this box, you certify that your project is eligible for a reduced cost share obligation.*

Figure 10. Funds and Costs Tab

3.4   Contact Information

Applicants are required to provide one Business Point of Contact as well as one Technical Point of Contact. The Technical Point of Contact should be the Principal Investigator for the research & development work to be performed. This information may be updated later, prior to the Concept Paper close date. Click `Save and Continue` to move to the next tab.

Figure 11. Contact Information Tab

3.5   Technology Readiness Level (TRL)

Applicants are required to provide the Technology Readiness Level (TRL), for both the current state of the proposed technology and the expected TRL at the end of the R&D effort on a scale of 1 to 9, as shown in Figure 12 below. This information may be updated prior to the submission deadline.

TRL levels are defined briefly as follows:

- TRL-1 – Basic principles observed and reported
- TRL-2 – Technology concept and/or application formulated
- TRL-3 – Analytical and experimental critical function and/or characteristic proof of concept
- TRL-4 – Component and/or breadboard validation in laboratory experiment
- TRL-5 – Component and/or breadboard validation in relevant environment
- TRL-6 – System/subsystem model or prototype demonstration in a relevant environment
- TRL-7 – System prototype demonstration in an operational environment
- TRL-8 – Actual system completed and qualified through test and demonstration
- TRL-9 – Actual system proven through successful mission operations

A more detailed description of TRLs is attached as Appendix 1 to the FOA. Please click the **Save and Continue** button to save your work before proceeding onto the next tab.

Figure 12. TRL Tab

3.6   Upload and Submit

Applicants are required to upload the Concept Paper in **the specified file format.** Files not matching the specified type will not be uploaded Additionally, the Concept Paper must comply with the content and form requirements described in the FOA. Include the assigned control number in the upper right-hand corner within the Concept Paper. Prior to the submission deadline, to make changes to the Concept Paper, remove the existing Concept Paper and replace it with an updated version.

To upload the Concept Paper, click , and then select the file to be uploaded and click the button. You can upload additional files by clicking the button.

Before submitting the Concept Paper application, check the box certifying that the applicant has reviewed and agreed to the terms and conditions that are specific to each FOA:

Figure 13. Sample Terms and Conditions

Click to submit the Concept Paper application. A successful submission of a Concept Paper to the ARPA-E eXCHANGE portal is acknowledged by a message on the screen stating, "Your Concept Paper has been successfully submitted", as well as by an automatically generated email notification containing the date/time stamp of the submission to the applicant.

Figure 14. Upload and Submit Tab

General	Team Members	Funds and Costs	Contact Information	TRL	**Upload and Submit**

Please upload your submission in Adobe PDF format. You must include your assigned control number in the upper right-hand corner of your submission. Prior to the submission deadline, if you decide to make changes to your submission, you may remove your existing submission and replace it with an updated version.

Note: Filenames must be 150 characters or less.

☐ I have reviewed and agree to the following Terms and Conditions:

On behalf of the lead organization for this submission, I hereby agree to ARPA-E's funding terms and conditions, including but not limited to the agency-specific and programmatic requirements, described in the ARPA-E Funding Opportunity Announcement and ARPA-E's Model Cooperative Agreement. I certify that I am authorized to agree to these terms and conditions on behalf of the lead organization.

☑ By clicking the Submit button, I certify that I am authorized to submit on behalf of Example Company.

[Submit] [Refresh] [Go To FOA Details]

[Previous Tab]

3.7   Required Information

If you have not provided information that is required for the submission of a Concept Paper, a notification in red text will appear on the "Upload and Submit" tab describing the information that has to be provided. You are required to enter the missing information in order to submit your Concept Paper. Incomplete applications, including submissions that fail to include required information, are not reviewed or considered.

3.8   Other Information

Applications can be modified or deleted from the application process with the Edit or Delete links on the My Submissions tab. After the application is submitted, the applicant can replace a previously uploaded Concept Paper by clicking the Remove File button under the Upload and Submit tab of the Concept Paper application. If the application does not need modification, the application is complete.

Successful submittal of a Concept Paper Application will be specified on the Upload and Submit tab for the FOA.

Reference the My Submissions tab for a FOA to reference the status of an application.
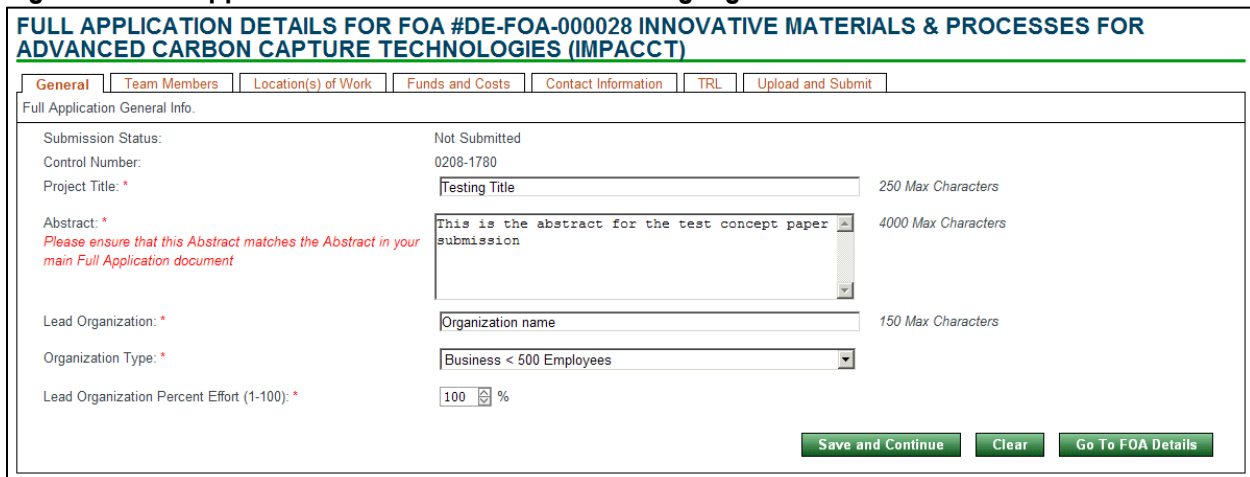
The Logout button in the top right all webpage's and in the left navigation logs the applicant out of ARPA-E eXCHANGE. This ensures the security of the application and its contents.

4.   Full Applications

To submit a Full Application and supporting information, applicants should access the [My Submissions] page and click the control number of the associated concept paper. The applicant should then click the [Create a full application for this FOA] button to begin a new Full Application.

The applicant must provide the requested information in the seven tabs as outlined in this section, and shown in Figure 15: 1. General, 2. Team Members, 3. Location(s) of Work, 4. Funds and Costs, 5. Contact Information, 6. TRL, and 7. Upload and Submit. The General, Team Members, Funds and Costs, Contact Information, and TRL tabs will already be populated from the Concept Paper submission.

Figure 15. Full Application Details with General Tab Highlighted

To move to the next tab and save work, click on the [Save and Continue] button.

Note: *The [Go To FOA Details] button will take the applicant back to the FOA details. Please save information before returning to FOA or open FOA details in another window.*

4.1   General

This tab lists information provided during the initial concept paper registration process. Please verify its accuracy before proceeding. Please note, the Abstract must be the same as the Abstract submitted during the Concept Paper stage.

4.2   Team Members

This tab lists information previously provided during the Concept Paper phase. If an applicant wishes to add a new team member, click the [Add New Team Member] link. Continue to add all team members by repeating the process before proceeding the next tab. As done for the Concept Paper, team member details for a new team member are to be filled out and saved by clicking the [Save and Continue] button.

Figure 16. Team Members Tab

4.3 Location(s) of Work

This tab is singular to the Full Application process. Within the "Location(s) of Work" tab, you are required to identify the locations at which work will be performed under the funding agreement. To add a work location, click the **Add Location** button at the center of the page, as shown in Figure 17. Applicants can add multiple locations, but only one location can be designated as the "primary" location. Then click the **Save and Continue** button and continue to the next tab. An applicant may add multiple work locations through this process.

Figure 17. Location(s) of Work Tab

Location(s) of Work Details are requested as follows:

Figure 18. Location(s) of Work Details

4.4   Funds and Costs

The "Funds and Costs" tab contains the same information that was inputted during the Concept Paper stage, as shown in Figure 19. You may modify the information under this tab, as appropriate.   Please click the [Save and Continue] button to save your work before proceeding onto the next tab.

Note: *ARPA-E eXCHANGE requires you to propose a cost share of at least 20% of the Total Project Cost under the "Funds and Costs" tab.*

Note: *If your project qualifies for a reduced cost share requirement described in the FOA, check the applicable box under the "Funds and Costs" tab. By checking this box, you certify that your project is eligible for a reduced cost share obligation.*

Figure 19. Funds and Costs Tab

4.5   Contact Information

The "Contact Information" tab contains the same information that was inputted during the Concept Paper stage. You may modify the information under this tab, as appropriate. The Technical Point of Contact should be the Principal Investigator for the research & development work to be performed. Please click the [Save and Continue] button to save your work before proceeding onto the next tab.

Figure 20. Contact Information Tab

4.6 Technology Readiness Level (TRL)

If the applicant has reassessed the Technology Readiness Level (TRL) for either the current state of the proposed technology or the expected TRL at the end of the R&D effort, revisions are made to the TRL tab.

Figure 21. TRL Tab

4.7   Upload and Submit

Within the "Upload and Submit" tab, you are required to upload each component of the Full Application to ARPA-E eXCHANGE. The full application submission consists of multiple documents to be uploaded in **the specified file format,** files not matching the specified type will not be uploaded. Revisions to uploaded documents can be made prior to the submission deadline by removing the desired document and replacing it with an updated version.

To upload the documents, click [Browse...] next to each description of the document, then select the file to be uploaded and click the [Upload App424 File] button. This process is repeated until all fields are complete. To upload additional files, click the [Upload New Additional File] button.

Figure 22. Upload and Submit Tab

Before submitting the Full Application, check the box certifying that the applicant has reviewed and agreed to the terms and conditions as follows:

Figure 23. Sample Terms and Conditions

☐ I have reviewed and agree to the following Terms and Conditions:
On behalf of the lead organization for this submission, I hereby agree to ARPA-E's funding terms and conditions, including but not limited to the agency-specific and programmatic requirements, described in the ARPA-E Funding Opportunity Announcement and ARPA-E's Model Cooperative Agreement. I certify that I am authorized to agree to these terms and conditions on behalf of the lead organization.
☑ By clicking the Submit button, I certify that I am authorized to submit on behalf of Example Company.

[Submit]   [Refresh]   [Go To FOA Details]

Prior to submitting the Full Application, the applicant should double-check to ensure that all required documents have been selected to be uploaded. When all information is complete and files attached, the applicant should click **Submit** to submit the Full Application. A successful submission of a Full Application to the ARPA-E eXCHANGE portal is acknowledged by a message on the screen stating, "Your Concept Paper has been successfully submitted", as well as by an automatically generated email notification containing the date/time stamp to the applicant.

4.8   Required Information

If required information is outstanding or needs modification, an explanation in red text will appear on the Upload and Submit tab for the Concept Paper Application. These items must be corrected before the application can be successfully submitted for a FOA.

4.9   Other Information

Applications can be modified or deleted from the application process with the Edit or Delete button on the My Submissions tab. After the application is submitted, the applicant can replace previously uploaded Full Application documents by clicking the **Remove File** button under the Upload and Submit tab of the Full Application submission. If the application does not need modification, the application is complete.

Successful submittal of a Full Application will be specified on the Upload and Submit tab for the FOA.

Reference the My Submissions tab for a FOA to reference the status of an application.

The Logout button in the top right and in the left navigation of all webpage's logs the applicant out of ARPA-E eXCHANGE. This ensures the security of the application and its contents.

5. Reply to Reviewer Comments

Following the evaluation of Full Applications, applicants will have the opportunity to read the comments of the proposal's reviewers. ARPA-E will notify applicants via email that reviewer comments are available via ARPA-E eXCHANGE. Applicants may elect to respond to one or more Reviewer comments or to supplement their Full Application. Applicants are not required to submit a Reply to Reviewer Comments. Submitting a Reply to Reviewer Comments is optional. Each compliant and responsive Full Application will be considered on the merits regardless of whether a Reply to Reviewer Comments is submitted.

To begin the Reply to Reviewer Comments process, applicants must log in to their ARPA-E eXCHANGE.
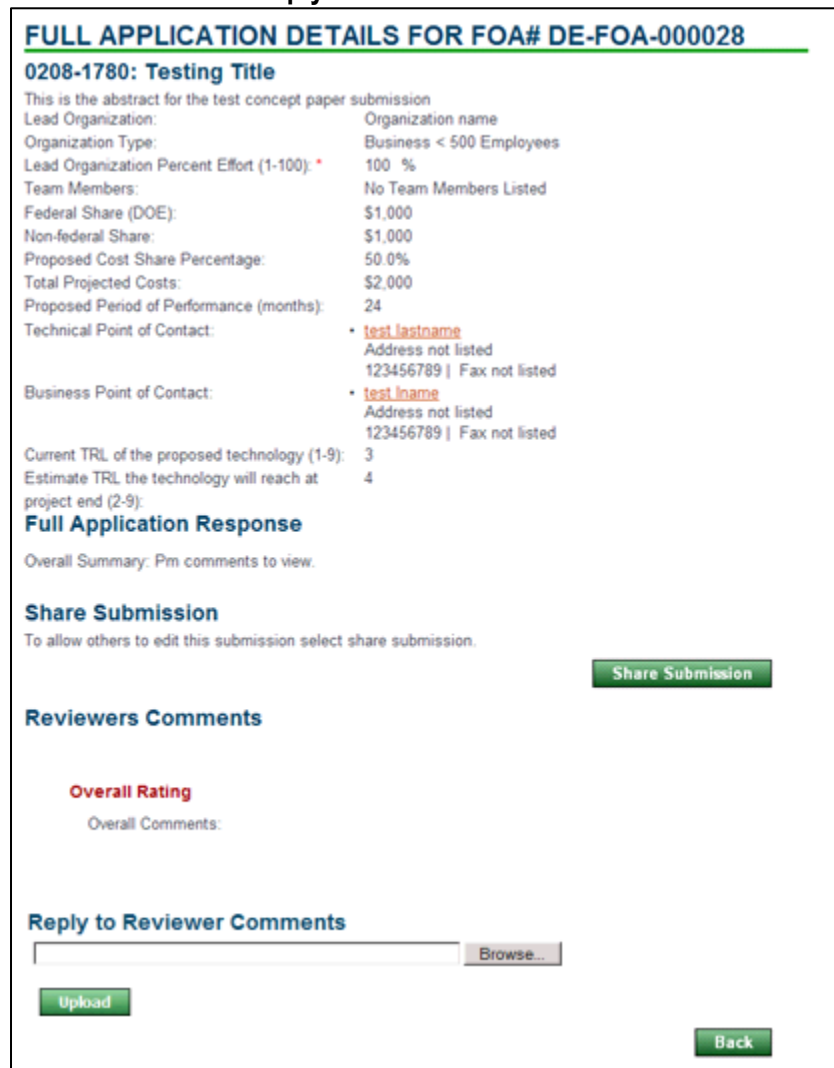
Next, you should access the ![icon] My Submissions page and click the control number of the associated Full Application. The Reviewer comments will appear under the title "Reviewer Comments" in the page displayed below in Figure 24.

Figure 24. Reviewer Comments and Reply Screen

If the applicant chooses to reply to the reviewer comments or submit additional or clarifying information, ARPA-E provides a specific window of time to submit replies in accordance with FOA guidelines. Applicants

should review the specified guidelines for the FOA for which they have submitted an application for details on response compliance criteria.

Applicants can then upload a file by clicking on the Browse... button to select the file, as shown in Figure 25. Once identified, the file is submitted by clicking the Upload button.

Figure 25. Reply to Reviewer Comments
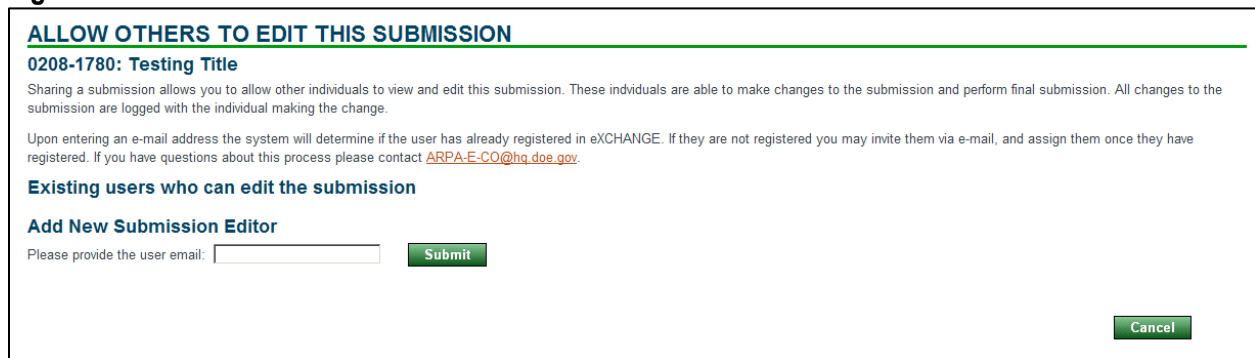
6.   Share Submission

At any point in the application process, applicants will have the opportunity to share their submission with additional contributors. To do so, applicants must log in to their ARPA-E eXCHANGE account and select the **My Submissions** button in the left navigation. Applicants must then click the control number of the submission they wish to share, which opens the "Concept Paper Details" or "Full Application Details" page in a new window, as in figure 24.

At the bottom of this page applicants must click the **Share Submission** button, which opens the "Submission Share" page, as in figure 26.

Figure 26. Submission Share
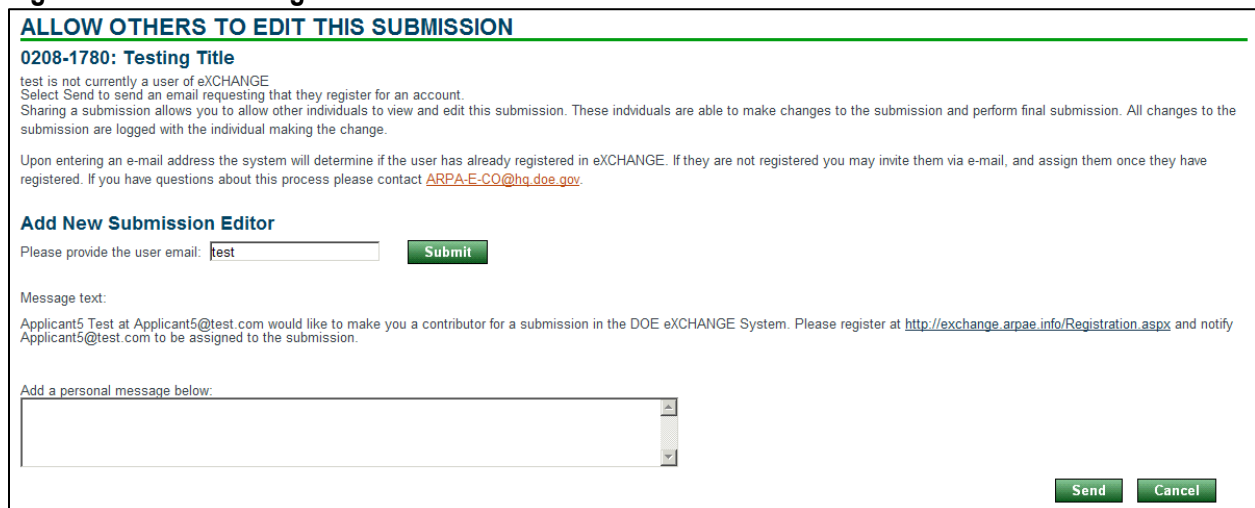
Here, applicants can view their existing shares and add new shares. To add a new share, the applicant must enter the email address of the individual with which they wish to share in the

Please provide the user email: field and click the **Submit** button.

If the user is already registered in ARPA-E eXCHANGE, users will be prompted to **Confirm** their new share. If the user is not registered in ARPA-E eXCHANGE, users will be given the option to send an automated email inviting the user to join eXCHANGE and view their submission. Users can also add a personal message to the individual with which they are sharing the submission, as shown in Figure 27.

Figure 27. Send Message to New Share

7.   Updates

This document will be amended as ARPA-E eXCHANGE evolves – especially during the evaluation processes and new funding rounds.